Poughkeepsie 9.44.55

Rethinking the Arterials & Interchange

Committee Meeting #6

December 18, 2020

Dutchess County Transportation Council

FITZGERALD & HALLIDAY, INC.
Innovative Planning, Better Communities

Creighton Manning

Agenda

- Welcome
- Interchange Status
  - Public Meeting Summary
  - Common Council Feedback
  - Cost/Constructability Summary
  - Recommendation Discussion
- Arterials Status
- Schedule

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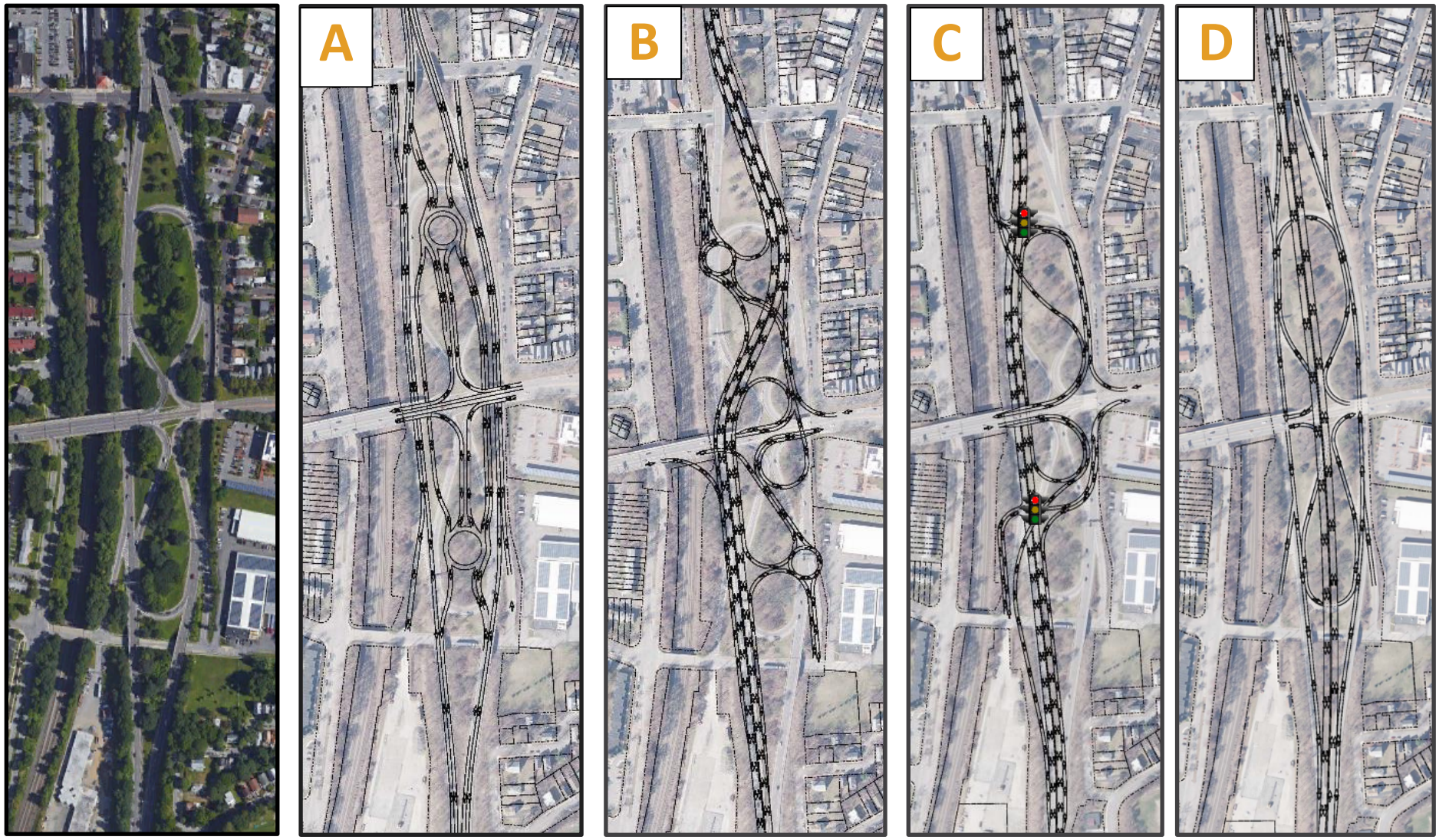
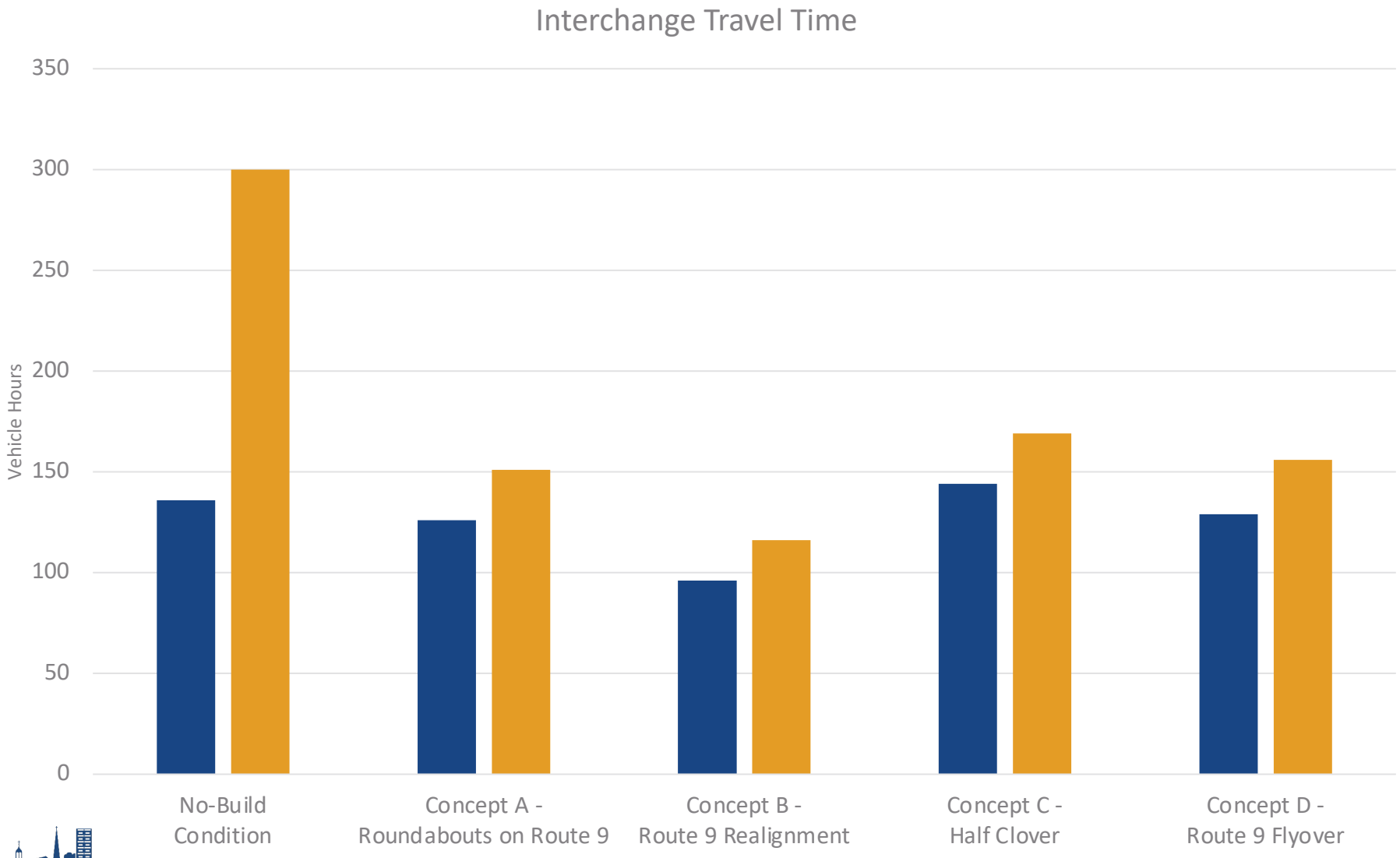
Public Meeting 2 Summary

Concepts for Review



Travel Time Comparison



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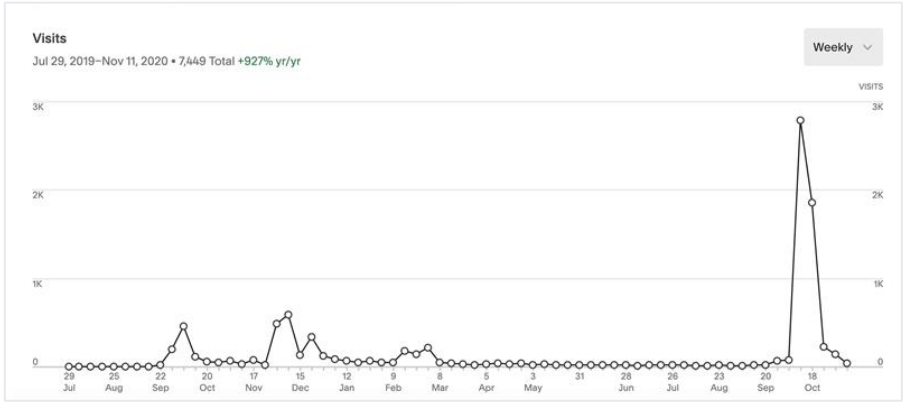
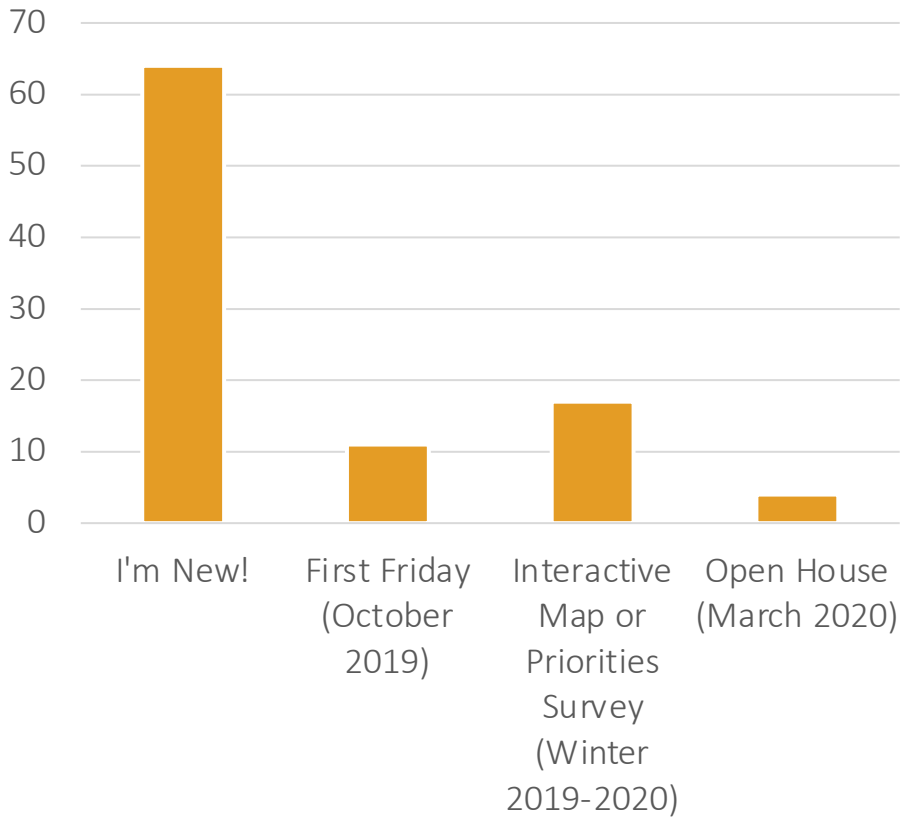
Public Feedback

- 181 unique IDs participated
- High interest in viewing and commenting on concepts, low participation in concept ranking

Website Visits



Have you participated previously? n=97



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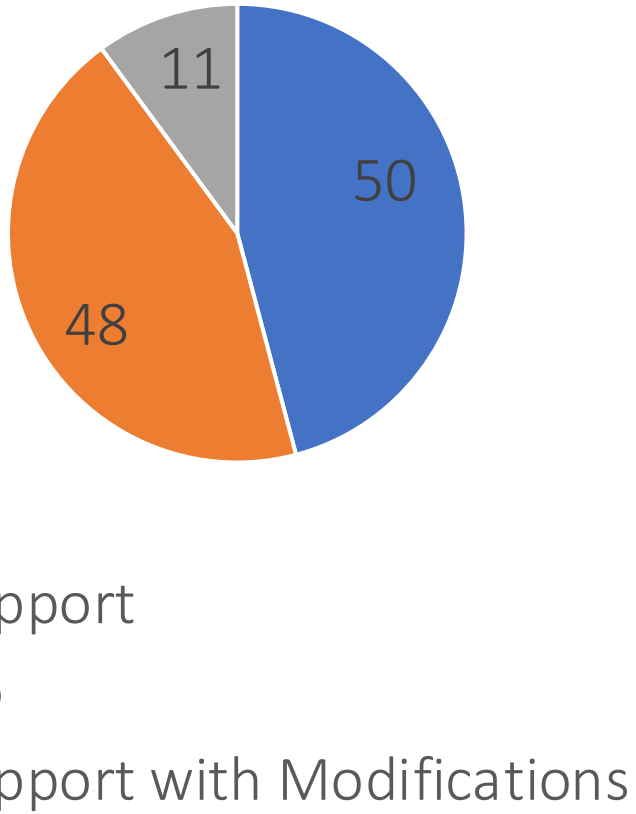
Reaction to Concept A (n=109)

Comment Themes

- Support
  - Roundabouts
  - Reduce speeds
- Oppose
  - Left side ramps
  - Roundabouts (esp. two-lane)
  - Access between Main Street and Mid Hudson Bridge
  - Diversions



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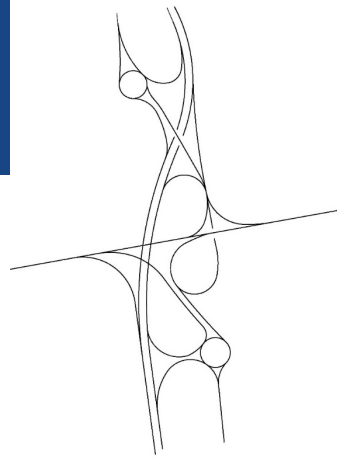
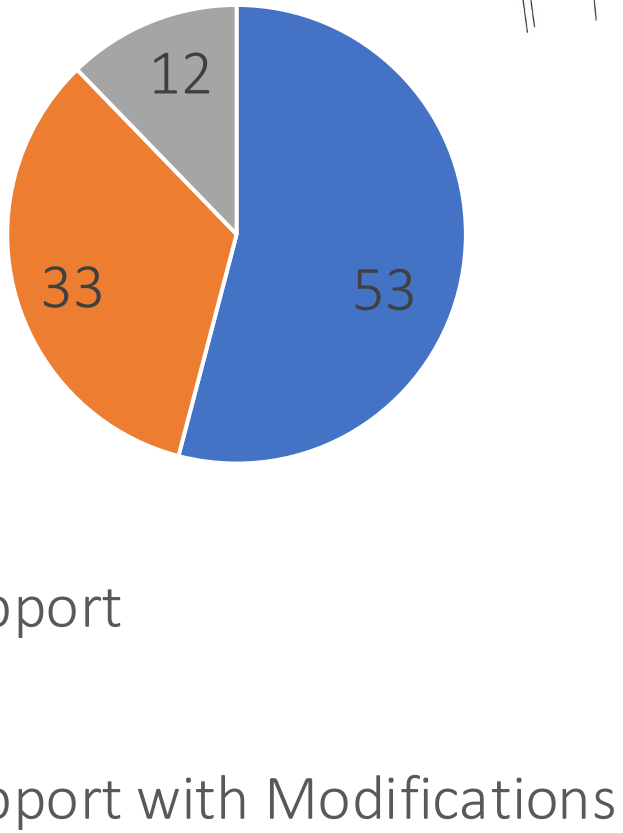
Reaction to Concept B (n=98)



Comment Themes

- Support
  - No left side ramps
  - Dedicated ramps for origins and destinations
  - Slows traffic on Route 9
- Oppose
  - Design appears confusing
  - Concerns with realignment on historic district neighborhood



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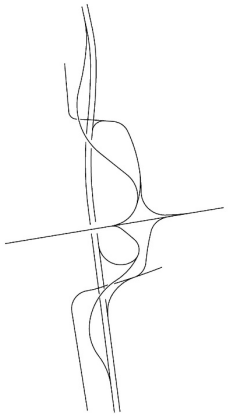
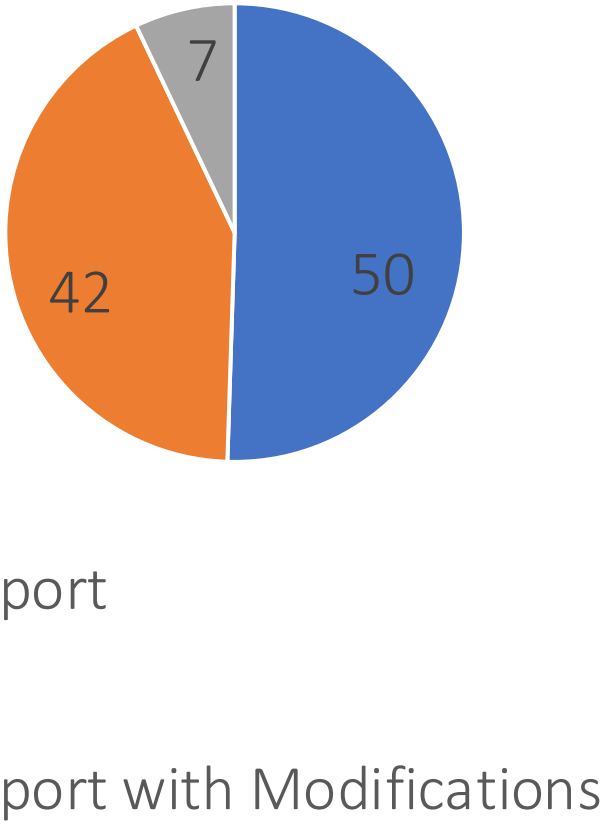
Reaction to Concept C (n=99)



Comment Themes

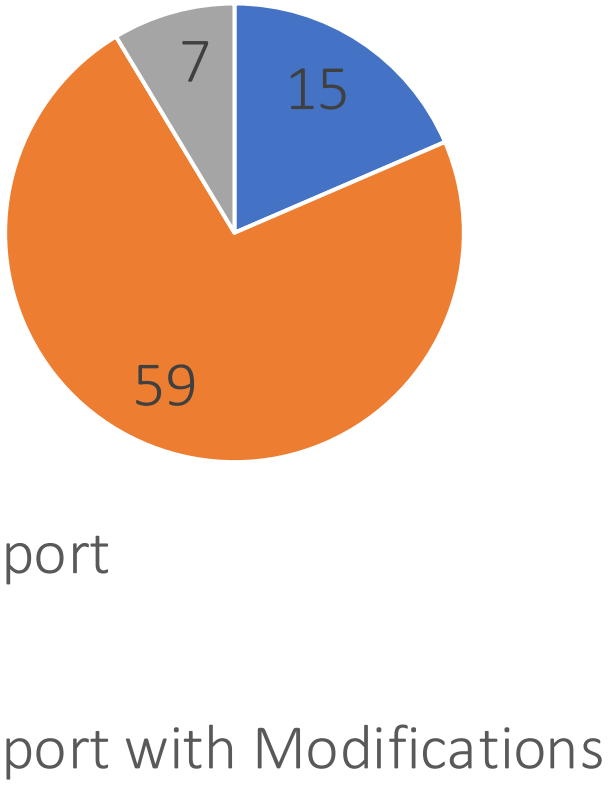
- Support
  - Intuitive
  - Signals could help reduce speeds
  - Free-flow ramps for high volume moves
- Oppose
  - Safety & travel time concerns related to signals



Reaction to Concept D (n=81)

Comment Themes

- Support
  - Maintains flow of through traffic on Route 9
- Oppose
  - Out of character with the area
  - Visual impacts
  - Lack of weaving / safety improvements
  - Perceived cost



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Concept Reaction Summary (n = 81 to 109)

Rank	Support or Support with Modifications	Concept	
1	66%	Concept B	Route 9 Realignment
2	57%	Concept C	Half Clover
3	56%	Concept A	Roundabouts on Route 9
4	27%	Concept D	Route 9 Flyover

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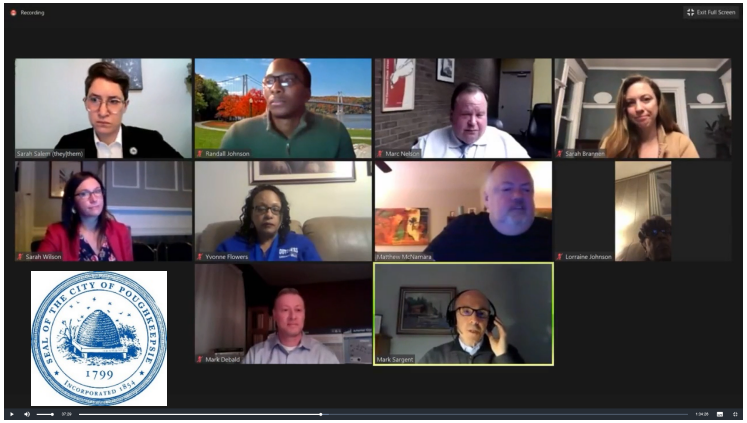
Concept Ranking - Public Survey (n=36)

Rank	Score	Concept	
1	1.97	Concept B	Route 9 Realignment
2	2.36	Concept A	Roundabouts on Route 9
3	2.73	Concept C	Half Clover
4	3.44	Concept D	Route 9 Flyover
5	4.56	No-Build	

Common Council Meeting (Nov 2, 2020)

- **Community-context** focused vs specific Interchange Concepts
- Reducing speed limit on Route 9
- Walking/biking connections
- Reconnect to local street grid



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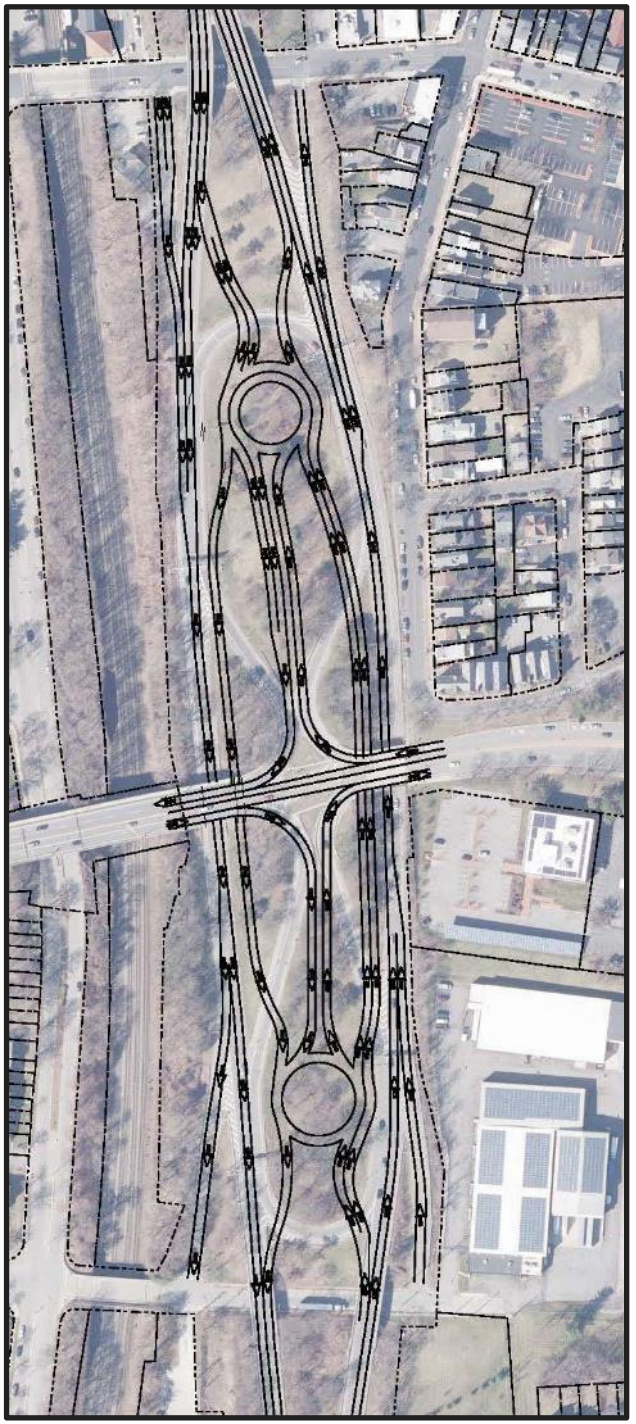
Costs and Constructability

Concept A – Roundabouts on Rt. 9

- Cost Estimate $25M
- Relatively straightforward to construct
  - Roundabouts can be built without affecting traffic
- One bridge impacted
  - 44/55 over northbound Route 9
  - Avoid bridge over southbound Route 9 with barrier on Route 9
- Short duration detours and alternate routes



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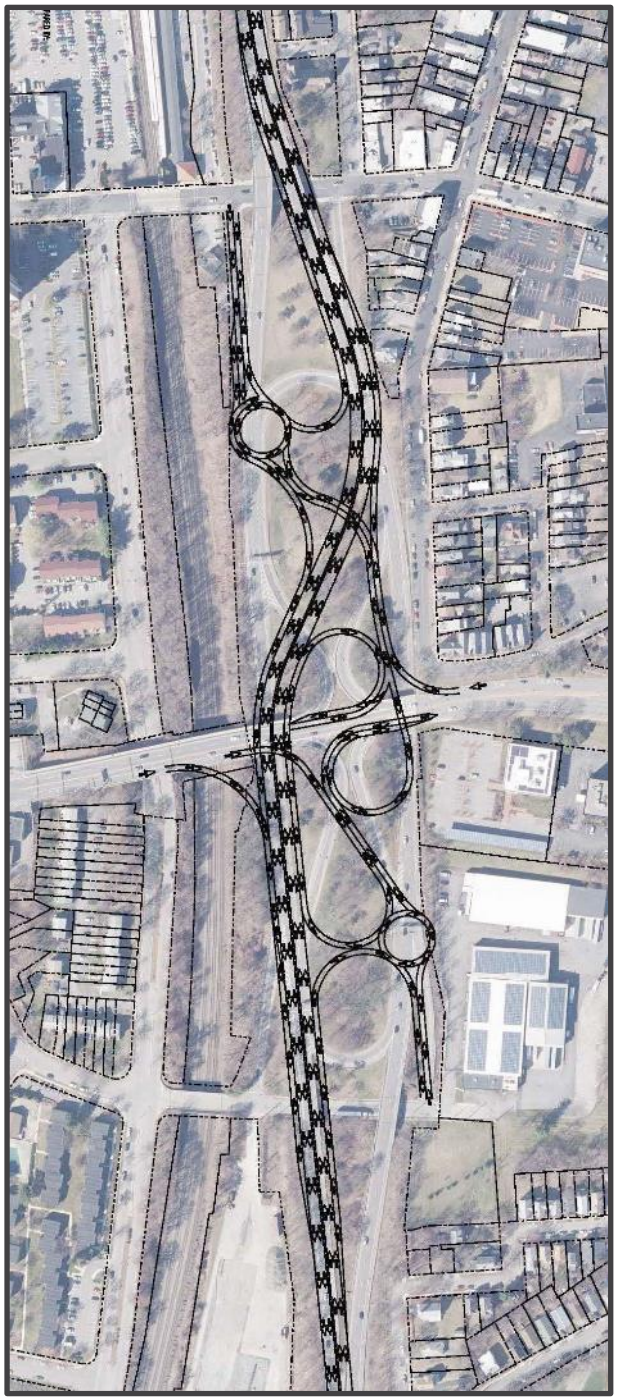
Concept B – Rt. 9 Realignment

- Cost Estimate $50M
- Complex to construct
- Five new or existing bridges
  - 44/55 over southbound Route 9 is approach span to Mid-Hudson Bridge
  - Not practical to widen to the west
- 44/55 eastbound off-ramps not feasible as shown
- Longer duration detours and alternate routes



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Concept C – Half Clover

- Cost Estimate $55M
- Complex to construct
- Six new or existing bridges
  - Bridge over southbound Route 9 extend to the east
- Bridges for flyovers could be shortened
- Longer duration detours and alternate routes

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Concept D – Route 9 Flyover

- Cost Estimate $65M
- Relatively straightforward to construct
  - Bridge can be built without affecting traffic
- Four new or existing bridges
  - Three spans due to overall length
  - Shift alignment to fit bridge piers
- Short duration detours and alternate routes

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Recommendation Discussion

Evaluation Criteria

Address known safety concerns

- Improve ramp spacing, eliminate left-side weaves, reduce speed on Route 9, provide an intuitive design, improve accel/decel areas

Improve traffic operations

- Maintain free-flow on Mid-Hudson Bridge
- Minimize diversions

Promote community character

- Preserve historic district and avoid private property
- Integrate with local fabric

Consider cost & constructability

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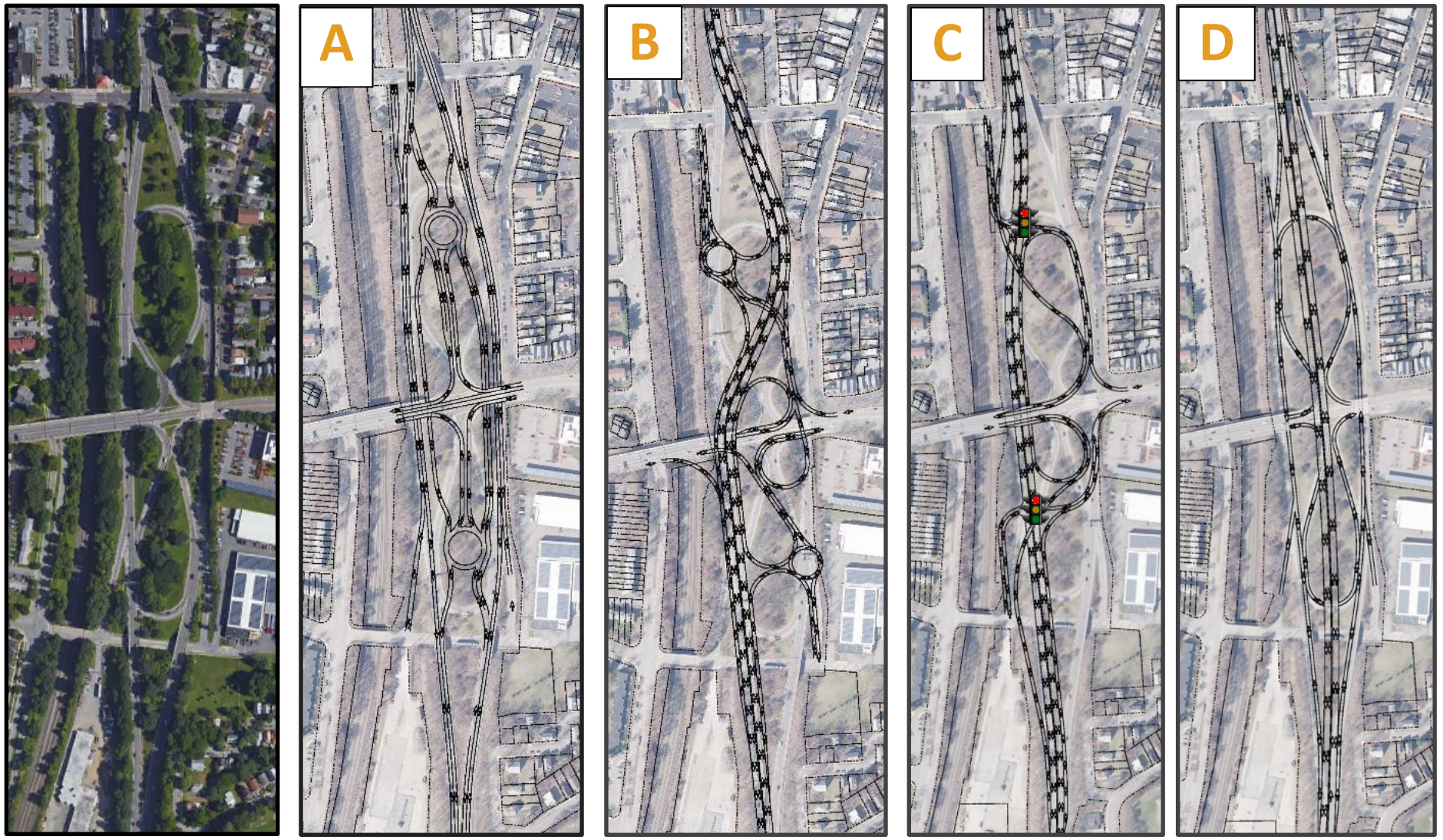
Evaluation Results

RATING CRITERIA	CONCEPTS					
	Concept	**Null**	**Concept A**	**Concept B**	**Concept C**	**Concept D**
	Description	***Null/ No-Build***	***Roundabouts on Route 9***	***Route 9 Realignment***	***Half Clover***	***Route 9 Flyover***
	Safety	**0**	**11**	**13**	**13**	**9**
	Traffic Operations	**8**	**11**	**12**	**12**	**11**
	Community Character & Context	**4**	**7**	**5**	**5**	**3**
	Cost & Constructability	**4**	**2**	**1**	**1**	**3**
TOTAL RATING		**16**	**31**	**31**	**31**	**26**

Discussion

Several Interchange concepts are considered feasible, but further engineering and environmental study is required as part of the design process to confirm the preferred alternative. Concept A (Roundabouts on Route 9) achieves most of the project objectives, is the most practical and feasible to construct, and can be built at a lower cost than the other three concepts.

Discussion


No-Build
Roundabouts on Route 9
A
Route 9 Realignment
B
Half Clover
C
Route 9 Flyover
D

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Arterials Status

Why

…maximize safety, livability, and connectivity, while delivering acceptable traffic operations

Crash rates are above average

Speeds are about 10 MPH over the speed limit

Demographics analysis shows 40% to 65% of households rely on other modes

The Arterials separate residential areas from commercial areas

Basic Concepts

1. Reduce lanes (3 lanes to 2)

2. Two-way (2 lanes with center turn lane)

Other?

Westbound Arterial east of Market Street / Civic Center Plaza)

Eastbound Arterial east of Columbus Drive

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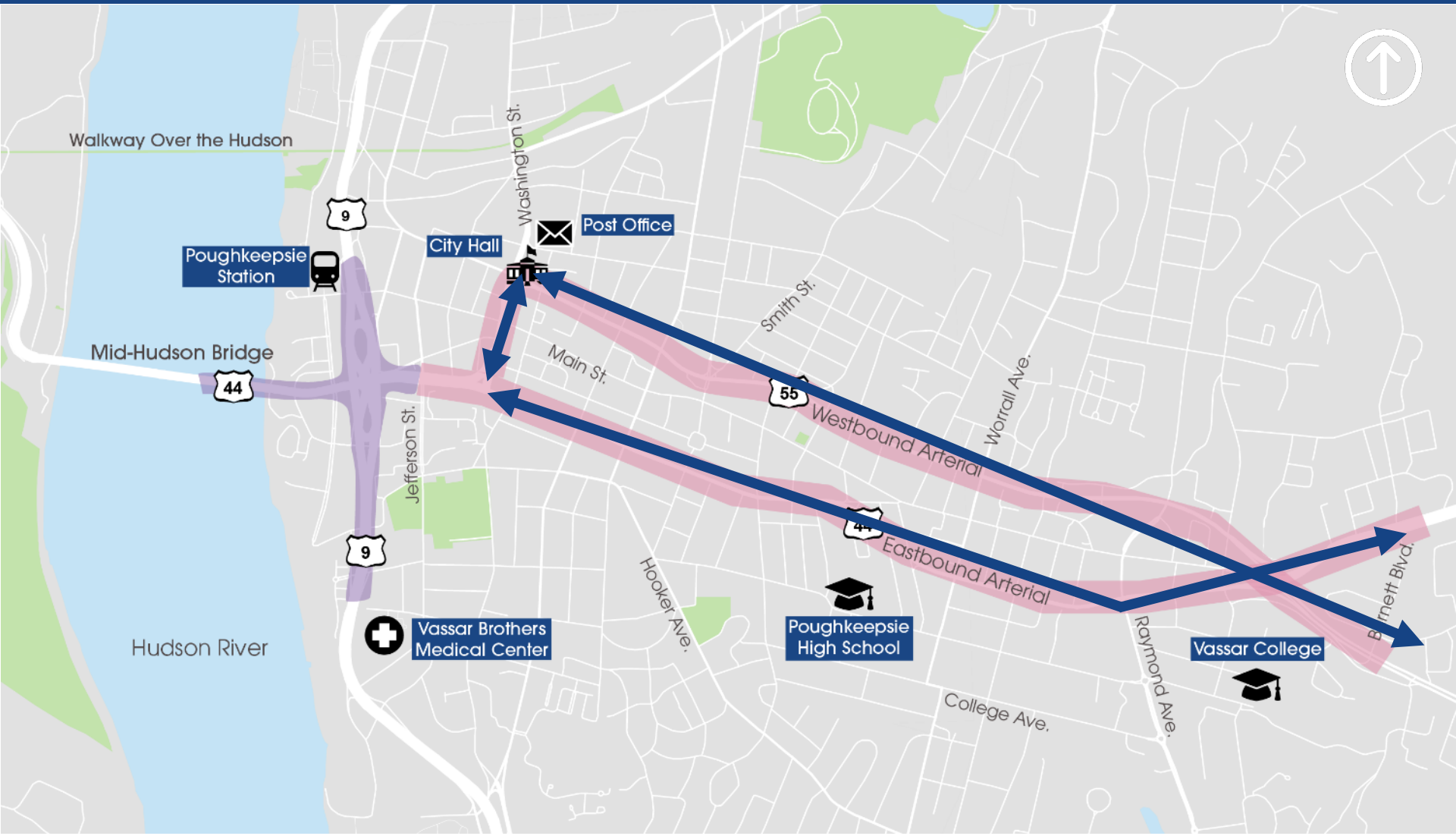
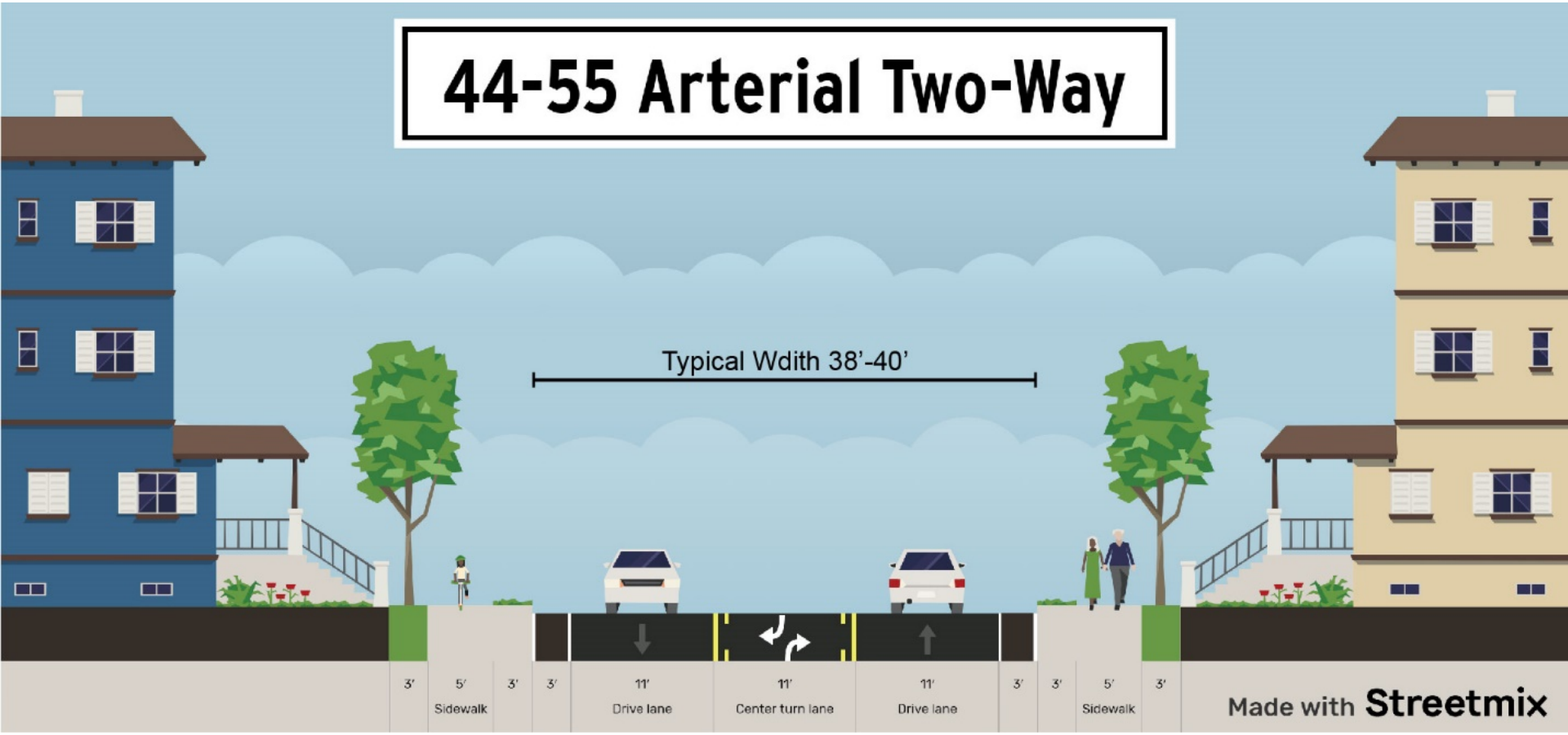
Two-way Concept



Two-way Concept

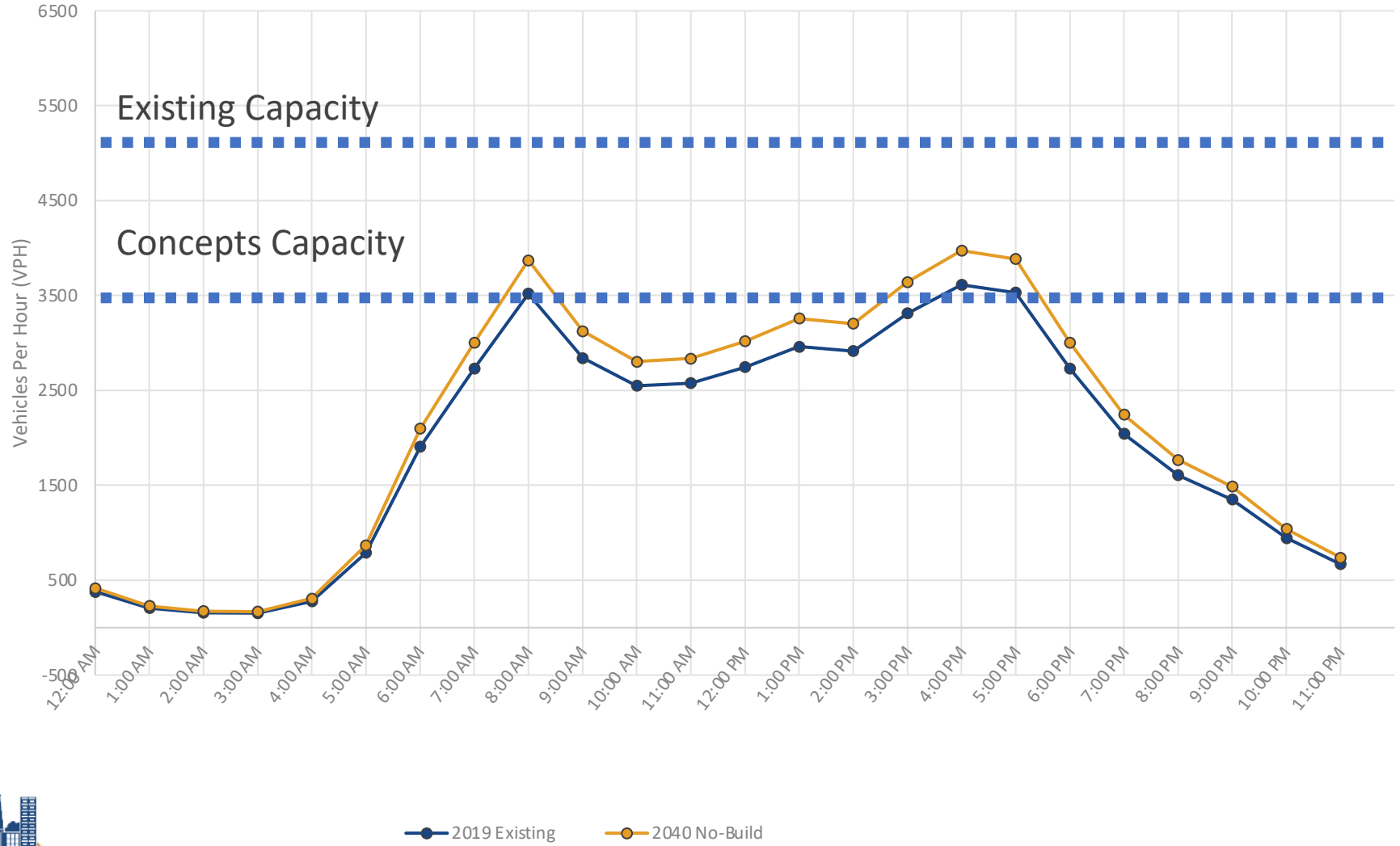


Preliminary Assessment

- Both concepts will operate near or over capacity
- Traffic diversions are possible
- Changes to traffic growth assumptions are possible

Example Location	Lanes	ADT Before	ADT After	Notes
Ocean Park Boulevard, Santa Monica, CA	4 to 2	23,000	18,500 to 20,000	13% to 20% reduction in ADT 65% reduction in crashes Volumes on nearby Streets stable
Valencia Street, San Francisco, CA	4 to 2	22,000	20,000	10% reduction in ADT 2%-8% increase in ADT on 4 parallel Streets Crashes and injuries decreased
Routes 44/55 Poughkeepsie, NY	6 to 4	40,000		

Theoretical Capacity Illustration



Route 9/44/55
Safety and Livability Study

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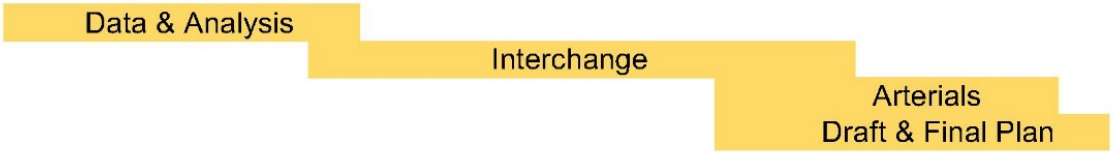
Schedule

Schedule



Task	Description	2019 S	O	N	D	2020 J	F	M	A	M	J	J	A	S	O	N	D	2021 J	F	M	A	M	J	J	A	S	O
1	Kick-off																										
2	Data Collection																										
3	Origin-Destination Analysis																										
4	Existing Conditions Analysis																										
5	Microsimulation Model																										
6	Develop Design Concepts																										
7	Develop Draft Concept Plan																										
8	Present Draft & Final Concept Plan																										
	Advisory Committee Meetings	1		2		3				4	5				6			7			8	9	10				
	Public Meetings						1								2					3			4				

Task Schedule

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